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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/815,328	04/01/2004	Vesa Juutinen	033047/276527	7552

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EXAMINER

HUG, ERIC J

ART UNIT	PAPER NUMBER
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1731

DATE MAILED: 02/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

DETAILED ACTION

Specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: Claims 3-5 and 10-12 recite that the pressure pulse elements are foils, rotating rolls, or non-rotating rolls, however there is no such recitation in the specification.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 7 and 14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claims contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. It has not been disclosed how one would use different pressure pulse elements to generate a pressure pulse in the dewatering space and immediately thereafter direct the pressure pulse away from the dewatering space. It has also not been disclosed what different types of pressure pulse elements may accomplish this.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6 and 8-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ebihara et al (US 4,999,087).

Ebihara discloses a paper web forming apparatus comprising two wires which move together with stock which is held therebetween (dewatering space) and a plurality of wire supporting members forming a wedge-shaped space with a width defined between the wire surface and the wire supporting member, wherein the wedge-shaped space is designed so that it decreases in the direction of movement of the wires. See particularly Figures 1 and 2. Figure 2 shows the pressure pulse profile exerted by foils 35 arranged with the gap oriented as described above. The foils are arranged on opposite sides of the wire. Therefore, pressure pulses are generated on both sides of the dewatering space simultaneously. The arrangement of dewatering elements shown in Figure 2 is suitable for any of the other wire types of paper machines shown in Figures 4, 7, 9, or 11. Note that the double wire type in Figure 9 also shows a plurality of dewatering elements alternately arranged on both the sides of the wires.

The arrangement of foils and the pressure pulses of the invention of Ebihara differ from those of the present invention in that the foil elements are disposed with the wedge-shaped space increasing in the wire movement direction instead of decreasing. However, this type of

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arrangement and the claimed pressure pulse profile obtained therefrom is shown as a prior art embodiment in Figure 5 of Ebihara. Alternatively, the use of table rolls instead of foils is disclosed as a prior art embodiment Figure 6 of Ebihara. Figures 5 and 6 have similar pressure pulse profiles. The foils/rolls therein exhibit the claimed positive and negative pressure pulses. Therefore, the claims are unpatentable over the prior art embodiments disclosed by Edihara, because they encompass at least the claimed arrangement of pressure pulse elements. It would have been obvious to one skilled in the art to construct the claimed invention from the prior art teachings of Edihara.

Claims 7 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ebihara et al (US 4,999,087) as applied to claims 1 and 8 above, and further in view of Tokuno (US 5,456,803).

In Ebihara, described above, there is no disclosure of using different types of pressure pulse elements for generating the pressure pulses. Tokuno discloses a double wire paper machine having foils (3) on the inside of one wire (4) and rolls (2) directly opposite and inside the other wire (5). Such a configuration generates the pressure pulse profile (undulations) and amplitude (magnitude of pressure) desired by Tokuno for dewatering. It also provides for flexibility in the choice of number of pulses and the pressure. Therefore, at the time of the invention it would have been obvious to one skilled in the art to use different types of pressure pulse elements in Ebihara to obtained the flexibility as taught by Tokuno.

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Claims 1-3, 6, 8-10, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Green (US 3,450,596) in view of Ebihara et al (US 4,999,087). Green discloses a twin wire web former having a converging gap (dewatering space), wherein lying on opposite sides of the dewatering space along the wires are deflectors 22 which aid in the dewatering of pulp between the two wires. This arrangement reads on the arrangements given in the claims, but there is little in Green to suggest that the pressure pulses arising from the deflectors are the same as per the claimed invention. However, Ebihara discloses the claimed pressure pulses for the same arrangement of deflectors (foils), therefore it is obvious from Ebihara that the arrangement of deflectors in Green gives rise to the claimed pressure pulses.

Claims 1, 2, 4, 6, 8, 9, 11, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hinde (US 1,699,487) in view of Ebihara et al (US 4,999,087). Hinde discloses a twin wire sheet former having a converging gap (dewatering space), wherein lying on opposite sides of the dewatering space along the wires are rolls 16 which aid in the dewatering of pulp between the two wires. This arrangement reads on the arrangements given in the claims, but there is nothing in Hinde to suggest that the pressure pulses arising from the rolls are the same as per the claimed invention. However, Ebihara discloses the claimed pressure pulses for an arrangement of rolls, therefore it is obvious from Ebihara that the arrangement of rolls in Green gives rise to the claimed pressure pulses.

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The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bando et al (US 5,248,392)

Buchmann et al (US 5,735,330)

Iwata et al (US 5,871,617)

These prior art references disclose various configuration of dewatering elements within twin wire paper machines, and also disclose the pressure pulses associated therewith.

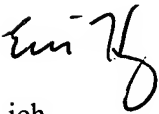
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Hug whose telephone number is 571 272-1192.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571 272-1189.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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